

REMARKS

Claim Rejections Under 35 U.S.C. §103(a)

Claims 1-3 and 10-12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,702,221 to Ortolano (“Ortolano ‘221” hereinafter) in view of U.S. Patent No. 5,215,432 to Pickering et al. (“Pickering” hereinafter). Applicant respectfully disagrees.

Referring to MPEP 2143.03, Applicant respectfully points out that in order to establish *prima facie* obviousness of a claimed invention, “all the claim limitations must be taught or suggested by the prior art,” and, as held in *In Re Royka*, 490 F.2d 981, “All words in a claim must be considered in judging that claim against the prior art.” Applicant’s claim 1 claims in part, “...multiple respective cover portions defining a first surface configured to span tips of multiple adjacent nozzle blades [supported by a stator]...and...an overcover coupled to a second surface opposite said first surface of said respective cover portions.”

Taken together, Ortolano ‘221 and Pickering do not teach or suggest an overcover coupled with a cover configured to the span tips of stator nozzles, as is claimed in Applicant’s claim 1. On the contrary, Ortolano ‘221, as stated by the Examiner in the July 10, 2006 Office Action and discussed in detail in Applicant’s response to the April 24, 2006 Office Action, only teaches a rotor and associated rotor blades. Referring to Pickering Figure 1, Pickering only teaches an outer shroud 10. While, as the Examiner points out, Pickering discloses the idea that turbulence causes vibratory excitation and stress in vanes (nozzles), Pickering addresses this issue via a resilient spring damper 24, not an overcover. Thus, neither Ortolano ‘221, nor Pickering teach or suggest an overcover coupled to a cover for nozzle blades supported by a stator. Therefore, as “...multiple respective cover portions defining a first surface configured to span tips of multiple adjacent nozzle blades [supported by a stator]...and...an overcover coupled to a second surface opposite said first surface of said respective cover portions,” is an element of claim 1, the combination of Ortolano ‘221 and Pickering do not teach every element of claim 1, or claims 2 and 3 that depend therefrom.

Similarly, method claim 10 claims in part, “attaching multiple stationary nozzle blades supported by a turbine stator with multiple respective cover portions...and... coupling an

overcover to...said respective cover portions. As neither Ortolano '221, nor Pickering teach or suggest attaching an overcover to a cover for nozzle blades supported by a stator, the combination of Ortolano '221 and Pickering do not teach every element of claim 10, or claims 11 and 12 that depend therefrom.

Furthermore, Applicant respectfully points out that Pickering does not teach that stator blades are exposed to the same vibratory forces as rotor blades. Pickering (at column 1, lines 31-32) teaches, "The turbulence of the airflow causes vibratory excitation," while Ortolano '221 (column 2, lines 13-15) teaches, "minimizing stresses due to centrifugal forces." As there are no stresses due to centrifugal forces on the stator blades of Pickering's, the causes of vibratory forces in Ortolano '221 and Pickering are different, and thus, the nature of the problem to be solved is different. Referring to MPEP 2143.01 section I, "there are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art," *In re Rouffet*, 149 F.3d 1350. As mentioned above, the nature of the problem to be solved between Ortolano '221 and Pickering is different, as are the teachings of the prior art (different turbine components performing different functions). As to knowledge of persons of ordinary skill in the art, references combined, "because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references, *Ex parte Levengood*, 28 USPQ2d 1300." Without objective reasons to combine, "The mere fact that references can be combined or modified does not render the resultant combination obvious," *In re Mills*, 916 F.2d 680. Since there is no objective reason for combination found in either Ortolano '221 or Pickering, it is respectfully asserted that combination due to knowledge of one of ordinary skill in the art is improper. As such, combination of Ortolano '221 and Pickering is not supported by any of the three sources discussed above.

Applicant respectfully asserts that claims 1-3 and 10-12 are allowable over Ortolano in view of Pickering.

Claims 1-4 and 10-13 have been rejected under 35 U.S.C. §103(a) as being unpatentable

over U.S. Patent No. 5,238,368 to Ortolano (Ortolano '368 hereinafter) in view of U.S. Patent No. 2,315,641 to Mosser (Mosser hereinafter), and further in view of Pickering.

Referring to MPEP 2143.03, Applicant respectfully points out that in order to establish *prima facie* obviousness of a claimed invention, “all the claim limitations must be taught or suggested by the prior art,” and, as held in *In Re Royka*, 490 F.2d 981, “All words in a claim must be considered in judging that claim against the prior art.” Applicant’s claim 1 claims in part, “...multiple respective cover portions defining a first surface configured to span tips of multiple adjacent nozzle blades [supported by a stator]...and...an overcover coupled to a second surface opposite said first surface of said respective cover portions.”

Taken together, Ortolano '368, Mosser, and Pickering do not teach or suggest an overcover coupled with a cover configured to the span tips of stator nozzles, as is claimed in Applicant’s claim 1. On the contrary, Ortolano '368 and Mosser, as stated by the Examiner in the July 10, 2006 Office Action and discussed in detail in Applicant’s response to the April 24, 2006 Office Action, only teach a rotor and associated rotor blades. Referring to Pickering Figure 1, Pickering only teaches an outer shroud 10. While, as the Examiner points out, Pickering discloses the idea that turbulence causes vibratory excitation and stress in vanes (nozzles), Pickering addresses this issue via a resilient spring damper 24, not an overcover. Thus, neither Ortolano '368, Mosser, or Pickering teach or suggest an overcover coupled to a cover for nozzle blades supported by a stator. Therefore, as “...multiple respective cover portions defining a first surface configured to span tips of multiple adjacent nozzle blades [supported by a stator]...and...an overcover coupled to a second surface opposite said first surface of said respective cover portions,” is an element of claim 1, the combination of Ortolano '368, Mosser, and Pickering do not teach every element of claim 1, or claims 2-4 that depend therefrom.

Similarly, method claim 10 claims in part, “attaching multiple stationary nozzle blades supported by a turbine stator with multiple respective cover portions...and... coupling an overcover to...said respective cover portions. As neither Ortolano '368, Mosser, or Pickering teach or suggest attaching an overcover to a cover for nozzle blades supported by a stator, the combination of Ortolano '368, Mosser, and Pickering do not teach every element of claim 10, or

claims 11-13 that depend therefrom.

Furthermore, Applicant respectfully points out that Pickering does not teach that stator blades are exposed to the same vibratory forces as rotor blades. Pickering (at column 1, lines 31-32) teaches, “The turbulence of the airflow causes vibratory excitation.” On the contrary, Ortolano ‘368 (column 3, line 19) teaches cover portions that minimize vibration caused by “twist due to centrifugal force.” As the causes of vibratory forces in Ortolano ‘221 and Pickering are different, the nature of the problem to be solved is different. Referring to MPEP 2143.01 section I, “there are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art,” *In re Rouffet*, 149 F.3d 1350. As mentioned above, the nature of the problem to be solved between Ortolano ‘368 and Pickering is different, as are the teachings of the prior art (different turbine components performing different functions). As to knowledge of persons of ordinary skill in the art, references combined, “because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references, *Ex parte Levengood*, 28 USPQ2d 1300.” Without objective reasons to combine, “The mere fact that references can be combined or modified does not render the resultant combination obvious,” *In re Mills*, 916 F.2d 680. Since there is no objective reason for combination found in either Ortolano ‘368 or Pickering, it is respectfully asserted that combination due to knowledge of one of ordinary skill in the art is improper. As such, combination of Ortolano ‘368 and Pickering is not supported by any of the three sources discussed above.

Applicant respectfully asserts that claims 1-4 and 10-13 are allowable over Ortolano ‘368 in view of Mosser, and in further view of Pickering.

Claims 5, 14, and 18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ortolano ‘221 in view of Pickering, and further in view of United States Patent No. 2,277,484 to Flanders (“Flanders” hereinafter).

As claim 5 depends from claim 1, and claims 14 and 18 depend from claim 10, for the same reasons as mentioned above, the combination of Ortolano '221 and Pickering does not teach every element of claims 5, 14, and 18. As Flanders also does not teach or suggest an overcover coupled with a cover configured to the span tips of stator nozzles, the combination of Ortolano '221, Pickering, and Flanders does not teach every element of claims 5, 14, and 18. Furthermore, as discussed above, the teachings of Ortolano '221 and Pickering should not be combined. Applicant respectfully asserts that claims 5, 14, and 18 are allowable over Ortolano '221 in view of Pickering, and in further view of Flanders.

Claims 4 and 13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ortolano '221 in view of Pickering, and further in view of Mosser.

As claim 4 depends from claim 1, and claim 13 depends from claim 10, for the same reasons as mentioned above, the combination of Ortolano '221 and Pickering does not teach every element of claims 4 and 13. As Mosser also does not teach or suggest an overcover coupled with a cover configured to the span tips of stator nozzles, the combination of Ortolano '221, Pickering, and Mosser does not teach every element of claims 4 and 13. Furthermore, as discussed above, the teachings of Ortolano '221 and Pickering should not be combined. Applicant respectfully asserts that claims 4 and 13 are allowable over Ortolano '221 in view of Pickering, and in further view of Mosser.

Claims 6, 7, 8, and 9 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ortolano '221 in view of Pickering, in view of Flanders, and further in view of Ortolano '368.

As claims 6-9 depend from claim 1, for the same reasons as mentioned above, the combination of Ortolano '221 and Pickering does not teach every element of claims 6-9. As Flanders and Ortolano '368 also do not teach or suggest an overcover coupled with a cover configured to the span tips of stator nozzles, the combination of Ortolano '221, Pickering, Flanders, and Ortolano '368 does not teach every element of claims 6-9. Furthermore, as discussed above, the teachings of Ortolano '221 and Pickering should not be combined.

Applicant respectfully asserts that claims 6-9 are allowable over Ortolano '221 in view of Pickering, in view of Flanders, and in further view of Ortolano '368.

Claims 15-17 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ortolano '221 in view of Pickering, and further in view of Ortolano '368.

As claim 15-17 and 19 depend from claim 10, for the same reasons as mentioned above, the combination of Ortolano '221 and Pickering does not teach every element of claims 15-17 and 19. As Ortolano '368 also does not teach or suggest an overcover coupled with a cover configured to the span tips of stator nozzles, the combination of Ortolano '221, Pickering, and Ortolano '368 does not teach every element of claims 15-17 and 19. Furthermore, as discussed above, the teachings of Ortolano '221 and Pickering should not be combined. Applicant respectfully asserts that claims 15-17 and 19 are allowable over Ortolano '221 in view of Pickering, and in further view of Ortolano '368.

Applicant respectfully asserts that all of the rejections are herein overcome. No new matter is added by way of the present Amendments or Remarks, as support is found throughout the original filed specification, claims, and drawings. Notice of Allowance is respectfully requested.

If the Examiner has any questions regarding the instantly submitted response, Applicant's attorney respectfully requests the courtesy of a telephone conference to discuss any matters in need of attention.

If there are any additional charges with respect to this response or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorney.

Respectfully submitted,

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